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HONORS PROGRAM

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Safe Injection Facilities

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Abstract

According to the Center of Disease Control and Prevention (CDC), “In 2016, a total of 63,632 persons in the United States died from drug overdoses; the age-adjusted rate was 19.8 deaths per 100,000 persons.” There have been countless programs with the sole purpose of reducing the amount of drug related deaths. Some with positive outcomes and others with negative outcomes. Since there is no feasible method of eradicating the problem as a whole, the next logical thing to do would to be creating effect prevention programs.

Safe Injection Facilities (SIFs) have been around for over three decades. They are widespread across Europe and most recently Vancouver, Canada. Multiple studies have been done to determine whether these SIFs are effective in reducing the number of drug related overdose and deaths, preventing the spread of blood borne infections like HIV and Hepatitis, and determining whether the establishment of SIFs are cost-effective.

The main purpose of this project is to bring more awareness to Safe Injection Facilities as a viable alternative drug rehabilitation program in the United States and to review studies done throughout the world to determine whether the establishment of a SIF in the United States is actually feasible and to determine whether or not SIFs are truly effective.

Keywords: Safe Injection Facility, Supervised Injection Facility, SIF

Introduction

Injection drug use has been consistently a problem throughout the history of the United States since the early twentieth century. There have been numerous laws and legislation explicitly dedicated to trying to solve the nation's problem. However, there has been no law or legislation that has successfully eradicated injection drug use. Politicians today have yet to find the answer to this, what seems like, everlasting problem. There are many consequences that follow injection drug use. Some comorbidities include but are not limited to endocarditis, systemic infections, bacterial infections, HIV/AIDS, overdose, and even death. "In 2016, an estimated 21 million people aged 12 or older in the U.S. needed substance abuse treatment" (Larson, 2017). Today there are numerous organizations and programs established for substance abuse treatment. In reality some of these programs work really well whereas a majority of them have shown less favorable outcomes.

In 1987 the first supervised injection site was established in Berne, Switzerland. These types of facilities go by many names like safe injection facility, supervised injection facilities, drug consumption rooms, and many more, but all of these facilities have the same practices and try to achieve the same goal. "Drug consumption rooms (safe/supervised injection facilities) are professionally supervised healthcare facilities where drug users can consume drugs in safer conditions. They seek to attract hard-to-reach populations of users, especially marginalised groups and those who use on the streets or in other risky and unhygienic conditions. One of their primary goals is to reduce morbidity and mortality by providing a safe environment for more hygienic use and by training clients in safer use. At the same time, they seek to reduce drug use in public and improve public amenity in areas surrounding urban drug markets. A further aim is

to promote access to social, health and drug treatment facilities” (Overdose). For the purpose of establishing consistency throughout this paper the term safe injection facility or SIF will be used. “Supervised injection facilities (SIFs, also called safe injection sites or drug consumption rooms) are facilities that provide a hygienic space for people to inject pre-obtained drugs under the supervision of staff trained in overdose response as well as injection-related risk reduction strategies. SIFs aim to reduce health and public order problems such as overdose, public injection, and street-discarded needles by providing high-risk, socially marginalized people who regularly inject drugs in public spaces with a safe location to consume drugs out of the public eye” (Davidson, 2017).

Problem Statement

Injection drug use related accidents is and always be a problem. Since there is no true way to eliminate injection drug abuse, the question then becomes, how do we contain this epidemic in the most cost effective way as possible. Education programs around the United States have shown positive effects however they lack the ability to help these individuals once they fall down the slippery slope. In the field of nursing, nurses always encounter individuals with these drug abuse problems one way or another. Whether this be directly on the floors and emergency room or indirectly providing case management for an individual with a drug abuse problem. No matter the circumstance, nursing and drug abuse will always have some sort of relationship. It always has, and it will continue to be if an answer for this epidemic isn't found or created. Furthermore, in Europe and Canada, the establishment of Safe/Supervised Injection Facilities have shown very promising numbers in reducing the amount of drug related overdose

and deaths as well as reducing the amount of viral or bacterial infections in these individuals. All of these results were also done with cost effectiveness in mind.

Purpose

The purpose of this project is to bring awareness to Safe Injection Facilities and to review multiple studies done around the world, including the United States, to determine the effectiveness of Safe/Supervised Injection Facilities in reducing the amount adverse outcomes of injection drug use as well as in reducing the amount of money the government spends on injection drug abuse.

Literature Review

Participation in Safe Injection Facilities around the World

The purpose of the article, “PERSPECTIVES ON DRUGS Drug consumption rooms: an overview of provision and evidence” was to help readers understand how normalized SIFs have become all over Europe. “With the emergence and rapid spread of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) linked to epidemics of heroin use and drug injecting in the 1980s, a range of responses geared towards reducing the harms associated with drug injection and other high-risk forms of use were developed in Europe. These included services such as outreach, peer education, health promotion, the provision of clean injecting equipment and opioid substitution treatment. While harm reduction as a policy started to gain wider acceptance and expanded in Europe throughout the 1990s, one of the more controversial responses has been to make spaces available at local drugs facilities where drug users could consume drugs under supervision” (Perspectives, 2017). As of April 2018, there are: 31 facilities in 25 cities in the Netherlands; 24 in 15 cities in Germany; five in four cities in Denmark, 13 in

seven cities in Spain; two in two cities in Norway; two in two cities in France; one in Luxembourg; and 12 in eight cities in Switzerland. An organizational overview of 62 of these SIFs in seven European countries done by Dr. Sara Wood showed that over half of these SIFs offered daily support and services for at least eight hours of the day. An estimated 20 to 400 clients attended daily. To put that into perspective that is about 7,300 to 146,000 times a year that injection drug users check into these facilities. These numbers have seen slight incremental increases in participation each year.

Insite was the first Safe Injection Facility in North America was established in Vancouver, Canada in 2003. Since then, numerous studies have been done in hopes to determine whether or not these Safe Injection Facilities are actually a successful alternate treatment for injection drug abusers or whether they are just pits money. SIFs like Insite not only provide clean needles for people who inject drugs to use but there has been significant research showing that these SIFs open doors for continued help and external drug treatment services. (Gaddis et al. 2017). “At Insite in Vancouver, B.C., there was a 35 percent reduction in fatal overdoses in the area around the facility, compared with a 9.3 percent reduction in other parts of the city that may have had other interventions. People who used Insite were also much less likely to share needles than those who shot up in unsupervised places. And of the 8,040 people who visited the facility in 2016, 517 were referred to addiction treatment, and more than a third of them completed it” (Safe Injection, 2018).

In a 2017 study done in Vancouver, Canada , Gaddis et al. sought to report the enrollment in on-site detoxification services at SIFs within the previous six months. All participants who completed a study visit between November 1, 2010 and December 31, 2012, and who reported

injecting drugs in the previous six months at baseline were included in the present analyses (Gaddis et al., 2017). The researchers then chose explanatory variables that they thought to be associated with access to addiction treatment services, “these included sociodemographic and behavioral variables including: age (per year older); gender (male vs. female); ancestry (White vs. Non-White); unstable housing (yes vs. no); sex work involvement (yes vs. no); and residence within five blocks of the SIF (b5 blocks vs. ≥ 5 blocks). Drug use variables considered included: \geq daily injection cocaine use (yes vs. no); \geq daily injection heroin use (yes vs. no); \geq daily injection crystal methamphetamine use (yes vs. no); \geq daily injection prescription opioid use (yes vs. no); \geq daily crack smoking (yes vs. no); binge injection drug use (yes vs. no); nonfatal overdose (yes vs. no); participation in MMT (yes vs. no); public injecting (yes vs. no); syringe sharing (yes vs. no); requiring help injecting (yes vs. no); difficulty accessing needles (yes vs. no) and frequent SIF use (\geq weekly vs. biweekly). Other variables assessed included being HCV antibody positive (yes vs. no) and HIV seropositive status (yes vs. no)” (Gaddis et al., 2017). The results of this study showed that $>10\%$ of the sample reported accessing on-site detoxification services at a SIF over a median of 17 months of follow up. When the research team restricted their sample to who reported recent use of the SIF, 23.7% reported accessing on-site detoxification services during follow-up. Overall this study showed that a substantial of people who inject drugs enrolled in detoxification services at SIFs. These findings are important because it shows that people who use SIFs not just staying stagnant in their drug use but are willing to undergo detoxification services as well as other forms of treatment which could possibly lead to cessation of drug injecting.

In another study done in Vancouver, Canada, Stolz et al. aimed to examine the association between consistent SIF use and self-reported changes in injecting practices among a representative cohort of SIF users. The method used to complete this research study was the Scientific Evaluation of Supervised Injecting (SEOSI), “In brief, the SEOSI cohort is a representative sample of randomly recruited SIF users. At baseline and 6-month follow-up intervals, SEOSI participants provide a venous blood sample and complete an interviewer-administered questionnaire. The questionnaire elicits demographic data as well as information about current and past drug use, HIV risk behaviour, enrolment into addiction treatment and use of the SIF” (Stolz et al., 2007). Informed consent was obtained from each participant. Some of the items being asked on the questionnaire included, “syringe reuse, rushed during injections, injecting outdoors, using clean water to inject, cook/filtering drugs prior to injection, tying off prior to injection, syringe disposal practices, ability to get a vein the first time and injecting environments” (Stolz et al., 2007). Participants were also asked, “In the last month, what proportion of your injections took place at the SIF?” Response options were none (0% of the time), few ($\leq 25\%$ of the time), some (26–74% of the time), most ($\geq 75\%$ of the time) and all (100% of the time). Consistent injectors were defined as those who said they used the SIF for some, most or all of their injections (i.e. $>25\%$ of all injections).” As a final question, participants were asked if their injecting behaviors have changed since using a SIF. Those who answered yes were then further question on how their behaviors have changed. The results were then compiled and then put against each other using the Pearson’s Chi-square test and the Wilcoxon rank sum test. The study found, “that more consistent use of a SIF is associated with positive changes in injecting practices, including less reuse of syringes, increased use of sterile

water, cleaning of injection sites and cooking/filtering of drugs. In addition, those participants who reported consistent SIF use were less likely to report rushed injections, a practice associated previously with non-sterile injection and increased risk for overdose” (Stolz et al., 2007). The overall take away from this study was that, SIFs have positive correlations toward injection drug abuse. The limitations of this study was the fact that this study relied on self-reported information. Participants could have provided false information skewing the data collected in a positive manner.

Safe Injection Facilities in the United States

“Annual opioid fatalities have now surpassed the yearly number of deaths from AIDS at the height of that epidemic in the mid- 1990s. In 2016 drug overdose deaths numbered 63,000, more than the U.S. death toll from the entire Vietnam War. The trend is terrifying: the problem is getting worse each year” (Safe Injection, 2018). As of today, December 2018, there is not a single Safe/Supervised Injection Facility in spite of very compelling research and evidence generated through Europe and even more so Canada.

The tricky part about establishing a Safe/Supervised Injection Facility in the United States is the fact that there is no single law that allows or forbids the establishment (Beletsky et al., 2008). This leaves a lot of things up to interpretation. Beletsky et al. explains, “assessing the legality of a SIF requires a prediction about how local, state, and federal officials will interpret varying state and federal laws on drug possession and the maintenance of premises for illegal drug use (Beletsky et al., 2008)” in the article “The Law (and Politics) of Safe Injection Facilities in the United States.” Beletsky et al. then goes on to say, “Whether the legality of a SIF would be

challenged in the first place is a function of how law enforcement officials exercise their prosecutorial discretion. Much would depend on the political climate, both in the local community and in Washington, DC.” The most controversial topic regarding the establishment of SIFs is that the local police and authority would be expected to “turn a blind eye” on these individuals who are publicly injecting and using illegal drugs. Beletsky et al. comment, “Overlooking open possession and consumption would be asking for a more substantial degree of self restraint than many police would exercise, especially if the state also had a law prohibiting the operation of premises for drug consumption” (Beletsky et al., 2008). Where things get a little tricky in establishing SIFs throughout the United States is that the fact that, “State legislatures certainly have the authority to sanction the operation of SIFs, including the use and possession of illegal drugs on the premises... however, that state authorization cannot nullify federal drug laws, and so does not protect a SIF against being shut down by federal law enforcement agencies through raids, arrests, or other legal proceedings.” Overall, the main conclusion that the researchers came to was that there would definitely be a rocky road for the establishment of SIFs in the United States. Beletsky et al., also stated that there was enough evidence proving the effectiveness of SIFs as documented in many studies done around the world.

While the odds and chances of an actual SIF to open in the United States may seem slim, legislators and politicians in San Francisco and Philadelphia are working to establish the first SIF in the United States. In a study by Larson et al., the team of researchers aimed to achieve a few things: “[1] Describe literature related to supervised consumption facilities as harm-reduction strategies in addressing overdose deaths, infections and community harms from heroin and other

opioid use. [2] Apply estimates of outcomes from other communities to the City of Philadelphia's data, where data are available, to approximate the possible impact of a supervised consumption facility located where deaths from overdose have been most likely to occur" (Larson et al., 2017). Through this article, Dr. Sharon Larson and her team took current statistics and recorded results and tried to apply it to Philadelphia in hopes of determining if establishing a SIF would actually yield positive results. The research team created hypothetical models to represent the effects of the possible establishment of a safe injection facility in Philadelphia. "We primarily follow the methodology by Irwin et al. (2017) and Irwin et al. (2016) to estimate the potential financial and health impacts of a hypothetical SCF in Philadelphia. Wherever data were available, we focused our estimates in the neighborhood of Kensington as it is the locus of drug overdose deaths in Philadelphia. Wherever data were unavailable, we used the existing values from Baltimore that were found in the published article Irwin et al. (2017)" (Larson et al., 2017). The major concerns being tested for was the hypothetical amount of HIV and Hepatitis C cases being averted or not, the amount of deaths from overdose, and the cost-effectiveness that these SIFs would bring to Philadelphia. Using the model, the team found that the number of HIV cases that would be averted ranged from 1 to 18 cases annually. The number of Hepatitis C cases that could be averted ranged from 15 to 213 cases annually. The team tested and hypothesized the number of deaths by drug overdose twice. In the first model, the estimated overdose deaths could be reduced by 27 to 48 deaths per year. In the second model, the estimated overdose deaths averted ranged from 24 to 76 deaths annually. The last model replicated to estimate the financial impact of a hypothetical SIF in Philadelphia. Dr. Larson and her team found:

“[1] Reduced costs related to hospitalization for skin and soft tissue infections (SSTI) are estimated to be between \$1,512,356 and \$1,868,205 per year.

[2] We estimate the total value of overdose deaths averted is between \$12,462,213 and \$74,773,276 annually.

[3] Our estimates for the impact on health care costs annually are:

- a reduction of \$123,776 from ambulance costs,
- \$280,683 savings from a reduction in hospital emergency department utilization, and
- \$247,971 savings from reduced hospitalizations” (Larson et al., 2017).

Although this study did have some limitations, it provided as realistic outcomes as possible given the fact that SIFs are yet to be federally sanctioned. The numbers and results from this study show that the establishment of a SIF in Philadelphia, and hopefully everywhere else in the United States, provides beneficial outcomes.

Financial Considerations

Another factor in determining whether drug related programs are effective is the cost-effectiveness of said programs. “In October 2006 the Canadian Ministry of Health appointed an Expert Advisory Committee (EAC) to summarize the available research on the Insite facility” (Pinkerton, 2010). Pinkerton conducted a mathematical model-based analysis to assess the economic efficiency of Insite, a SIF in Vancouver, Canada. Pinkerton stated, “The objectives of this analysis were: (i) to quantify the epidemiological impact of the Insite supervised injection facility (number of HIV infections prevented), including the facility’s syringe exchange program; and (ii) to determine whether or not the associated savings in averted

HIV-related medical care costs are sufficient to offset Insite's operating costs—that is, to determine whether or not Insite is 'cost-saving'" (Pinkerton, 2010). The methods for data collection was an analysis that compared the current HIV incidence among injection drug users to the expected incidence over a 1 year time period. The results of this study found, "... Insite is highly cost-saving. The \$3 million annual investment in Insite prevents approximately 83.5 HIV infections per year and yields \$17.6 million in future HIV-related medical care cost savings. Despite uncertainty in several key parameter values, Insite remained cost-saving even when all parameters were set to their least favorable values. Most of the reduction in HIV incidence and the associated savings in future medical care costs were due to Insite's syringe exchange program, which was responsible for a 31% reduction in the expected incidence of infection" (Pinkerton, 2010). This research proves the feasibility that SIFs reducing medical cost associated with injection drug abuse hospitalizations. With these results, over a ten year span, the projected saving is \$176 million with a \$30 million investment.

Bayoumi et al. (2008), performed a research study to assess the cost effectiveness of a safe/supervised injection facility in Vancouver, Canada. Bayoumi et al. stated, "We used computer simulation to estimate the projected impact of Vancouver's supervised injection site on survival, rates of HIV and hepatitis C virus infection, referral to methadone maintenance treatment and associated costs... We developed a dynamic compartmental model to simulate the population of Vancouver, British Columbia. The population included injection drug users, non-users, persons with HIV and hepatitis C virus infection, and those with combinations of these states. Our model categorized populations into discrete compartments. By defining the probabilities of moving between compartments, we were able to project the prevalence of each

model state throughout the time horizon of the simulation... We used a time horizon of 10 years and updated the proportion in each model state every 0.1 years. We used a discount rate of 5% for both costs and life expectancy... Our main outcome of interest was the incremental cost effectiveness ratio of the supervised injection facility. Our comparator was a situation in which there was no such facility but other interventions for injection drug users were in place, including needle-exchange programs and methadone maintenance treatment.” (Bayoumi et al., 2008). The results of this study found that the safe/supervised injection facilities in Vancouver, Canada is associated with improved health outcomes. The most effective source of determining whether or not SIFs were cost effective was the number of HIV infections averted due to resources provided by SIFs. These improved health outcomes was directly correlated with cost savings due to avoided cases of HIV and other blood borne infections

The Project

Theoretical Framework

Health-related behaviors have been widely studied and Pender’s Health Promotion model helps identify components of why a person would/would not participate in the desired health activity/behavior (Galloway, 2003). The major components are modifying factors, demographics, interpersonal influences (social support), behavioral factors (prior experiences), and situational factors (Galloway, 2003). How an individual defines their health and mental status definitely correlates to the actions and decisions they make while taking drugs. This is definitely an important factor to keep in mind when discussing the reasons why individuals engage in injection drug use.

Objective

The purpose of this project was to educate and shine light upon the positives and negatives of Safe Injection Facilities.

Methods

During the month of April, an undisclosed hospital in the center of San Francisco will be holding their annual nursing competency in which all of the staff nurses are required to attend some classes or lessons on various topics in order to stay informed and up to date with policies and procedures. I created a teaching plan in which I educated a few nurses on the in's and out's of Safe Injection Facilities during their nursing competency. The total time allowed for the lesson was 10 to 15 minutes.

Participants

There was no way to know which nurses would attend this lesson as there was no sign up sheet for the competencies so the sample was completely randomized. A total of 11 nurses attended the lesson (n=11). Anonymity of participants was completely insured as there was no requirement for the participants to identify their names, departments, and specialties on anything.

Data Collection

The instrument used to determine effectiveness of teaching was a pre and post test containing questions with answers based of 5 point likert scales. Questions included: "How much do you know about Safe Injection Facilities?", "The current drug abuse treatment is sufficient..", "How many drug abuse patients have you cared for?", "The information provided was insightful", and "I learned new information during this session." Results obtained from these questions were then analyzed by finding the average answer for each question.

The main source for the literature review will be studies and articles found on the Iceberg Database accessed through the Archbishop Alemany Library of Dominican University of California. These studies were mainly done outside of the United States of America but studies done in the United States of America was also utilized throughout this review. A majority of these studies have been done within the past 10 years to ensure up to date findings and relatable conclusions. Search terms included: safe injection facility, supervised injection facility, SIFs, cost effectiveness of safe injection facilities, Are safe injection facilities ethical, Safe injection facilities in the US, safe injection facilities in Europe, safe injection facilities in Canada, United States, Europe, and Canada. All other methods being utilized throughout this review will be semi-structured interviews conducted over the phone or through emails with legislators who are involved with, negatively or positively, SIFs (Safe Injection Facilities). Questions will include: “What do you believe the benefit of SIFs are?”, “How will the state or federal government regulate these facilities?”, “Are we encouraging drug use by establishing these facilities?”, “How will local authorities react when they see individuals walking into these facilities with the intention of doing illegal drugs?”, “In what ways will these facilities be beneficial to the ordinary citizen?”, and “Where will funding for these facilities come from and How much will these facilities cost?”

Ethical Considerations

Due to the controversialness of the topic, there are many directions in which the outcome of the lesson went. To combat any negative outcomes, the lesson was taught in the most non-bias method.

Findings

To evaluate the effectiveness of the lesson, a pre and post test was given. The results of the pre and post test were analyzed by finding the average answer for each question. Again, the sample size was 11 participants, N=11. The first two questions were given on both the pre and post test.

Question 1: “How much do you know about Safe Injection Facilities?” The answers for the question was based off a 5 point likert scale ranging from “not much” being the lowest at 1 to “a lot” being the highest at 5. As shown in Figure 1., the average answer for this question after the pretest was right around 1.5 meaning that these nurses that were attending my session didn’t know that much about Safe Injection Facilities. After the session, the same question was asked and the average answer rose to 3.5 meaning that the nurses learned a little more about Safe Injection Facilities.

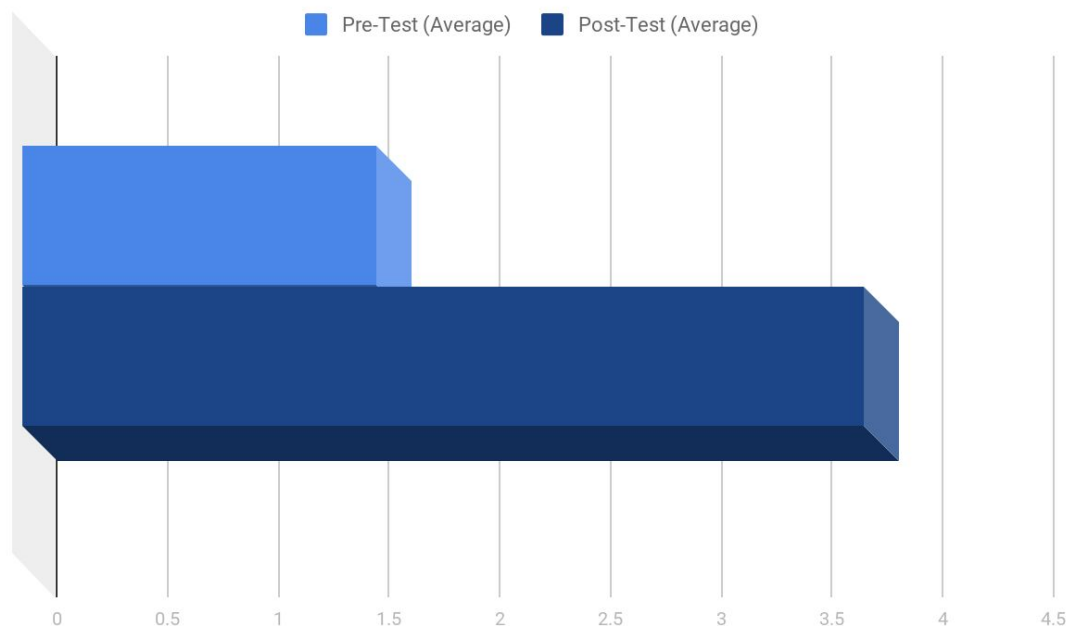


Figure 1.

Question 2: So for question two I asked the nurses whether or not they agreed with the following statement, “The current drug abuse treatment is sufficient..” Again, the answers were based off a 5 point likert scale ranging from 1 being strongly disagree to 5 being strongly agree. Shown in Figure 2., the average answer during the pretest was 3.5 meaning that these nurses somewhat agreed with the current drug abuse treatment was sufficient. However, after the session, the same statement was given and the average answer lowered to just a little over 2 meaning that by the end of the lesson the nurses started to disagree with the statement.

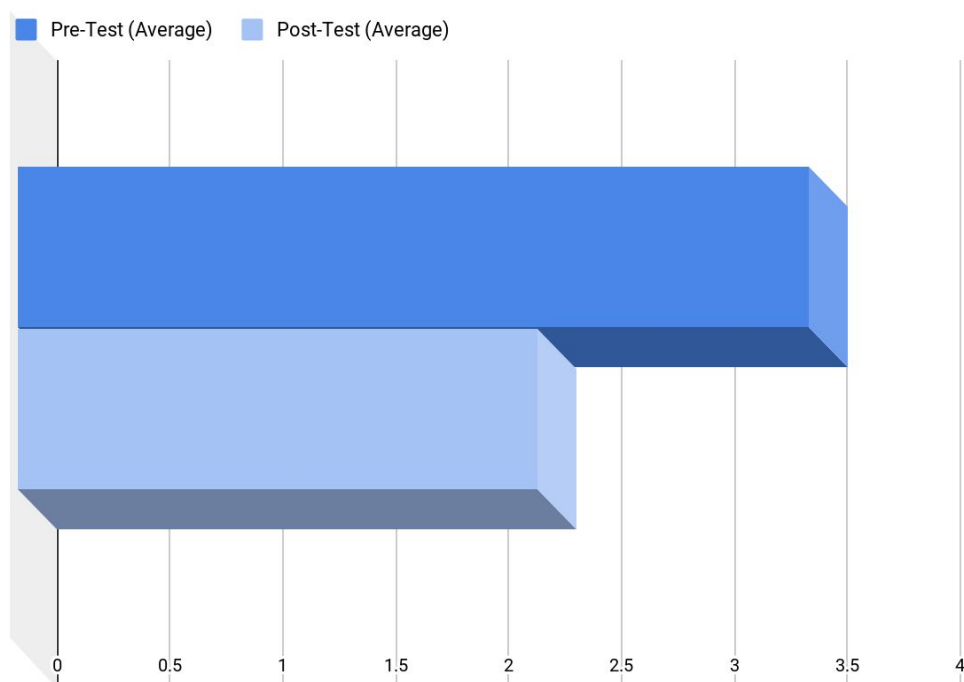


Figure 2.

Question 3: Just out of curiosity I wanted to know the participant’s experience with patients of drug abuse, so I asked them to circle how many drug abuse patients they have cared for, 1-3, 4-5, 6-7, 8-10, and 10+. Not surprisingly out of 11 total participants, a majority of the nurses cared for 10 or more drug abuse patients. As shown in Figure 3., not a single nurse during that session has cared for only 1-3 drug abuse patients, 1 nurse has only care for 4-5, 2 nurses

cared for 6-7, 2 nurses care for around 8-10 drug abuse patients, and 6 nurses cared for 10 or more drug abuse patients.

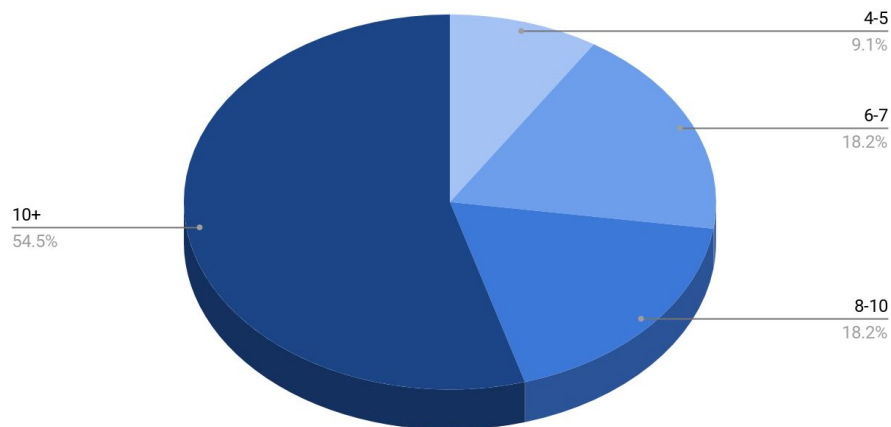


Figure 3.

Questions 4 and 5: My last two questions were created to evaluate myself and the material in my session. They were both based off of 5 point likert scales ranging from 1 being strongly disagree to 5 being strongly agree. As shown in Figure 4., when asked during the post test if the information provided throughout the lesson was insightful, the overall consensus from my participants was almost a 5, which meant that the nurses found my information to be insightful. The second question evaluated whether or not the nurses felt like they learned something new during the session and again the overall consensus was a little over a 4, which meant that they did learn new information during my session.

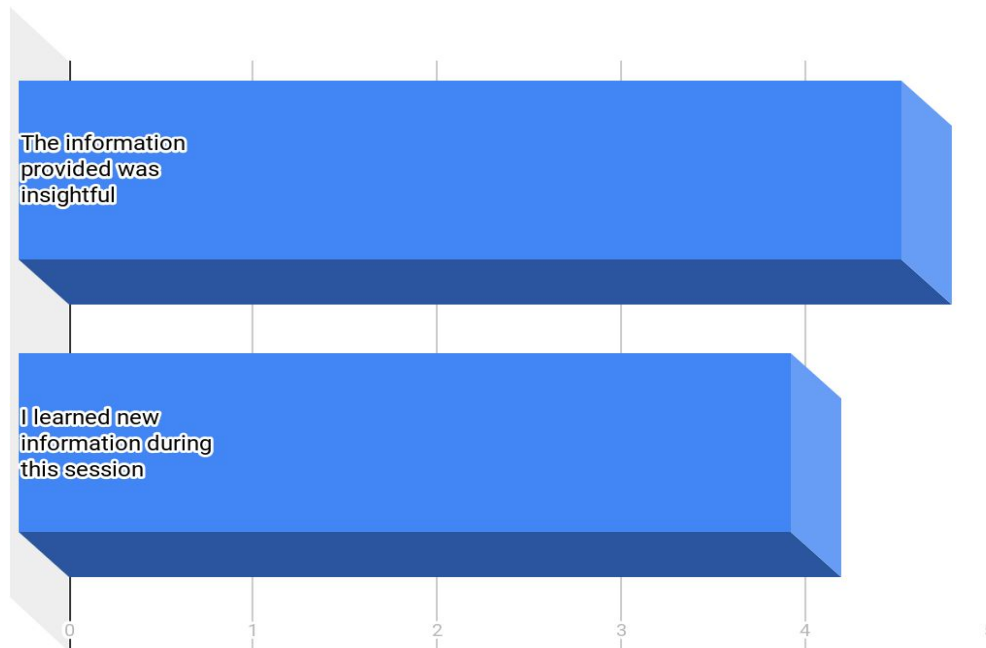


Figure 4.

Discussion

The establishment of a Safe Injection Facility in San Francisco was on the November, 2018 ballot, however it did not pass. While reviewing the results from my pre and post test, it definitely seems as if the general public could be better educated on the idea of Safe Injection Facilities. If these 11 licensed nurses, who deal with drug abuse patients all the time didn't know much or didn't understand much about what a Safe Injection Facility was, I could definitely see why the general public would hesitate to pass such a radical idea.

Moving forward, there is definitely room for better education about Safe Injection Facilities throughout nursing. In my small lesson, the overall consensus was that the nurses learned something from the lesson. There is much to be said about Safe Injection Facilities and hopefully, more research will be done as well.

Like any project, there are strengths and limitations. Some of the strengths of my project was that my sample size was very well educated and most of my participants had some type of experience caring for a patient with drug abuse. Some of the limitations of my project was that my sample size was relatively small and that my teaching was a one time thing and it was only done in San Francisco. Another limitation of my study was the most of the information about SIFs was gathered from research done outside the United States.

Conclusion

Safe/Supervised Injection Facilities has been shown to be very beneficial in many states and countries outside of the United States. The most documented and researched facility, Insite, in Vancouver, Canada has shown exponential benefits including reducing the amount of drug related deaths, preventing the spread of blood borne infections, and providing next level care opportunities. Many of the injection drug users have taken on detoxification services provided through Insite. Countless studies done in Europe and Canada also show, “that more consistent use of a SIF is associated with positive changes in injecting practices, including less reuse of syringes, increased use of sterile water, cleaning of injection sites and cooking/filtering of drugs. In addition, those participants who reported consistent SIF use were less likely to report rushed injections, a practice associated previously with non-sterile injection and increased risk for overdose” (Stolz et al., 2007). It is noted that the establishment of a SIF does not solve the ongoing problem of drug abuse, but it is a great step forward in preventing the terrible outcomes that might come from drug abuse.

As of May 2019, the establishment of a safe injection facility in the United States has yet to be accomplished but is a distant possibility. Politicians and legislators in Philadelphia and San

San Francisco have been working to establish the first SIF in the United States. Studies using models from Europe and Canada have been applied to cities in the United States and showed similar outcomes, all of which are positive.

Safe/supervised Injection Facilities have shown very positive effects for public health. There have been recorded decreases in the amount of syringe reuse, lower rates of HIV and blood borne infections, and most importantly significantly lower rates of death by overdose.

Moving forward, education about Safe Injection Facilities would greatly affect public opinion about the issue. There is also room for more research to be done regarding whether or not Safe Injection Facilities would actually benefit a nation like the United States.

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